



Forrest.Sabrina@epamail.epa.gov
06/16/2011 05:07 PM

To Barry_Hayhurst@urscorp.com
cc Megan_Adamczyk@URSCorp.com
bcc
Subject Fw: rare plants in Cement Creek fens

For our wetland file.

Sincerely,

Sabrina Forrest
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----- Forwarded by Sabrina Forrest/R8/USEPA/US on 06/16/2011 05:07 PM

From: Rodney Chimner <rchimner@mtu.edu>
To: Sabrina Forrest/R8/USEPA/US@EPA
Cc: Cathleen Zillich <czillich@fs.fed.us>
Date: 04/05/2011 12:55 PM
Subject: Re: rare plants in Cement Creek fens

Hi Forrest,

The only rare plant that I have seen in the area is a rare Sphagnum moss (Sphagnum obtusum). We found a very large patch of it at the confluence of Cement Creek and the North Fork of Cement Creek (I think we might have found some Sph. balticum there too, but most of it was obtusum). It is just to the east of the Red and Bonita mine (See attached figure for map, red area). There is likely other populations of Sph. obtusum lining Cement Creek along the way to Silverton, but nobody has ever looked.

This main population of Sph. obtusum is probably not being impacted by mine drainage from the adit at the study site (see map, green area), as

it is on the south side of the N. Fork of Cement Creek from the mine adit. However, there are many mines above the population of moss along the N. Fork, including Upper Gold King Mine. I have no idea what impact those mines are having. There is also a bare fen right next to the Red and Bonita Mine (blue area on map). This fen probably had the rare moss too, but there is nothing there now. It is similar to what I call Cement Creek fen (green area on map).

Yes, Sphagnum mosses can be impacted by too high a metal concentration. If mine drainage concentrated the natural metals, there would sure to be impacts to the plants. I am only just starting to learn more about metal impacts on plants, so I cannot speculate too much. I am hoping to get a preliminary assessment of metal concentrations in both natural and impacted fens this summer. Maybe Kay, some of these bare areas in fens are actually due to metal toxicity, and not mining?

Let me know if you need more info.

Cheers,
Rod

----- Original Message -----

From: "Forrest Sabrina" <Forrest.Sabrina@epamail.epa.gov>
To: "Cathleen Zillich" <czillich@fs.fed.us>, "Rod Chimner" <rchimner@mtu.edu>
Sent: Tuesday, April 5, 2011 1:52:00 PM GMT -05:00 US/Canada Eastern
Subject: Re: rare plants in Cement Creek fens

Thanks very much Kay!

Dr. Chimner, If there is any information or documents that would help us answer the questions Kay asked, I would be much appreciative if you could forward them to me. The EPA is currently trying to determine if there is a National Priorities List caliber portion of the watershed that remedial funds should help address.

Sincerely,

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(See attached file: figure sph obtusum.jpg) figure sph obtusum.jpg



A satellite map showing a landscape with a large, dark, irregularly shaped area in the center, likely a wetland or fen. Several roads are visible, including a major road on the left and a smaller road on the right. Three specific areas are highlighted with colored outlines: a green rectangle at the top, a red outline at the bottom left, and a blue outline at the bottom center. Text labels are placed over the map to identify these areas and other features.

Current bare fen study site

Bare fen

Rare Moss

Image USDA Farm Service Agency

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13 S. 267319.71 m E 4197224.48 m N elev. 10894 ft

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Eye alt 17133 ft